

**Week 1 Assignment**

**Overview**

In Texas, the Long-Range Plan for Technology, 2006-2020, establishes a shared vision of teaching and learning, and the processes for improved student achievement, through the application and integration of technology. In addition, the Technology Applications Texas Essential Knowledge and Skills (TEKS) define what students need to know and be able to do to function in an information-based economy. By the end of Grade 8, students are required to master the TEKS in four key areas: Foundations, Information Acquisition, Problem Solving, and Communication.

In this week’s assignment, you will summarize the key ideas of the Long-Range Plan and the Technology Applications standards. You will also evaluate and reflect on your own requisite knowledge for implementation of the TEKS at your campus.

**Rubric**

Use the following Rubric to guide your work on the Week 1 Assignment.

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| **Tasks**  **** | **Accomplished**  **10**  The evidence suggests that this work is a “Habit of Mind.” The educator is ready to mentor others in this area. | **Proficient**  **8**  The evidence suggests that performance on this work matches that of a strong educator. | **Needs Improvement**  **6**  The evidence does not yet make the case for the educator being proficient at this task. |
| **Long-Range Plan for Technology Summary** | Student thoroughly summarizes key ideas of each section of the Long-Range Plan for Technology. | Student provides a brief summary of each section of the Long-Range Plan for Technology. | Student does not summarize each section of the Long-Range Plan for Technology. |
| **Technology Applications TEKS Summary** | Student thoroughly describes each strand of the Technology Applications TEKS, and summarizes two objectives/skills for each domain; student answers the questions provided. | Student briefly describes each strand of the Technology Applications TEKS, and summarizes one objective/skill for each domain; student answers the questions provided. | Student does not describe each TEKS strand, and/or does not summarize at least one objective/skill for each domain; student fails to answer the questions provided. |
| **Requisite Technology Skills Assessment** | Student completes the Technology Applications Inventory and records responses on table, and provides thorough reflection regarding technology strengths and weaknesses. | Student completes Technology Applications Inventory and records responses on table, and provides brief analysis of technology strengths and weaknesses. | Student does not complete Inventory or record responses; and/or does not analyze technology strengths and weaknesses. |
| **Assignment Mechanics** | Responses are relevant to course content; no errors in grammar, spelling, or punctuation. | Responses are relevant to course content; few errors in grammar, spelling, or punctuation. | Responses do not reflect knowledge of course content, lack clarity and depth, and/or include multiple errors in grammar, spelling, and punctuation, including APA errors. |

**Week 1 Assignment, Part 1: Key Ideas of the Long-Range Plan for Technology**

The Texas Long-Range Plan for Technology, 2006-2020, is a comprehensive strategic plan divided into four domains: Teaching and Learning; Educator Preparation and Development; Leadership, Administration, and Instructional Support; and Infrastructure for Technology. In Part 1 of the Week 1 Assignment, you will summarize key ideas of the Long-Range Plan.

To complete this assignment:

* Access the Long-Range Plan by entering the following address into your web address bar: http://www.tea.state.tx.us/technology/lrpt/LRPTCompleteDec06.pdf
* Review the plan.
* Complete the table below by summarizing each of the key ideas stated in the chart, and answering the questions provided.

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| Long-Range Plan Section and Page Numbers | Summary of Key Ideas |
| **Vision 2020 (1-4)** | The Texas Long-Range Plan for Technology, 2006-2020, consists of four domains: Teaching and Learning, Educator Preparation and Development, Leadership, Administration, and Instructional Support, and Infrastructure for Technology. Teaching and Learning has a goal to promote student proficiency for a lifetime of global citizenship. This will be done by reaching the diversity of all learners with implementation of technological innovations in accordance with a form of individualized engagement. Educator Preparation and Development allows educators to use modern digital tools to enhance the teaching style for the reaching of diverse learners. Preparation also implements teacher development by continuing to take part in professional learning for continued technological enhancements and changes. Leadership, Administration, and Instructional Support has educators create an environment that will engage in educational planning with implementation of technological enhancements providing different learning opportunities for all learners. The fourth domain is Infrastructure for Technology which gives students and educators the appropriate skills to communicate and manage systems from all locations at anytime. This enables the learners to quick access and up to date information to assure high quality learning that coincides with technological advancements. Infrastructure will allow for continuation in educational advancements for modern day industry changes. |
| **Defining the Need for Change (5-6)** | Living in the 21st Century means that the educational system must incorporate new ideas that will allow for all the changes that may take occurrence during the time period. Changes such as rapid technological advances in the workforce, quick decision making, communicating technically, and educating economically disadvantaged students. In the 21st Century change is necessary. There will be nothing that should stand concrete but continuously raising the standards. We must prepare Texas learners and educators for the exponential change taking occurrence in today’s society. More students are economically disadvantaged and life expectancy has increased. This means we must prepare for working with the longer life expectancy and making sure we give the learners enough to help them for the longer road while maintaining the engagement of the economically disadvantage. |
| **Introducing the 21st Century Learner (7)** | Students in today’s society are 21st Century learners. This means that the students are technology-savvy and require a different style of learning rather that the traditional style used for many years. Educators must now incorporate new ideas that incorporate technological advancements. Educators can now use video clips from educational websites, hands on activities, etc. The educators must continue to teach traditional reading and writing but it is crucial to implement technology to keep up with society. Students in this century come from a different upbringing. One that gives a broad diversity of students and learning styles. It is essential for educators to continue to keep up with the advancements to help the students become successful in today’s fast growing technology based society. |
| **Teacher Voices (12-14)** | Teacher Voices explains how teachers use technology and the importance of its implementation in the classroom and daily tasks. Percentages show that technology is definitely in usage. Over thirty percent of the teachers whom completed the survey have over 16 years of experience. Many of them use computers for email, classroom teaching, search engines, and much more. A high percentage of teachers implement technology based items in their daily lives. Only 1 percent of teachers do not use any technological tool. With the high percentage of technology use from teachers this shows that technology is exponentially growing. With the fast growth of technology in the teaching industry, technology is definitely going to take a larger role in almost any work area. |
| **Teaching and Learning (17-22)** | Teaching and learning in the 21st Century must have engagement for the students. Educators should inform the students of how the material is relevant to their lives. Being in the 21st Century comes with many technological changes and advancements. Students can now access the internet from home allowing them to see their textbook online, research material, take distance learning courses and much more. Texas schools now allow students the opportunity to take distance learning courses to help accommodate for local resources. The integration of technology allows for teachers to be facilitators at times, co-learners, but mainly flexibility. Traditional styles no longer work and technology must be implemented to engage the students. As part of the Texas Long Range Plan for Technology, educators must participate in the changes made by the Texas Education Agency. With technology changing, educators should be flexible to allow for new integrated technological advancements that will help with captivating the students for learner engagement. These changes will occur through the state, regionally, and locally. TEKS will be an essential part of the flexibility of technological advancements. |
| **Educator Preparation and Development (23-28)** | Ongoing professional development in technology is a necessity for today’s educators. Educators lived a different time then the life of their student. The student must be prepared for what society demands of them. It is crucial for teachers to continue to develop professionally in technology based aspects. Texas will need to prepare the educators for the challenges that the 21st Century learner will bring. Development will incur recent research that shows instructional strategies that allow effective, learner-centered, engagement for today’s students. It is crucial for new teachers to complete development of new understandings for this digital age. Distance learning allows teachers the opportunity for professional growth, and lessons the number of teacher needed to teach a course helping with the teacher shortage. |
| **Leadership, Administration, and Instructional Support (29-34)** | Educators must be leaders by embracing and implementing technology. As and educator in the 21st Century it is crucial to keep up with technology updates by continuing professional growth with development classes. Teachers must learn the new technologies and implement them in their daily activities and classrooms. Administration along with leaders should format new ideas, consider funding, and continuously revise what will be effective for the learner’s education. This can be done by organizing a group of technology advisors such as a board to keep up with ongoing technology changes and demands. All, leadership and administration must give instructional support by implementing technology on a state, regional, and local level. The state has Star Charts to gauge the use of technology by the teacher within the classroom. The state must continue to keep records computerized such as a database for continuous easy access. They must continue to keep up with the industry to know what the latest technologies being used are and their effects. Through the region they must provide support for funding, budgeting, integration strategies, and planning. Regionally, they must continue to support the implementation of technology through continuous professional development and usage of new innovations. Locally, schools should allow for community involvement with new technological advancements. Allow budget for continuous professional development for technology. Implement SBEC Technology Applications Standards into local appraisal systems. Provide parents with access of resources to help with involvement of the student’s grades, performance and assignments. |
| **Infrastructure for Technology (35-40)** | As one of the four domains, Infrastructure for Technology is a crucial part of the Texas Long-Range Technology Plan. Infrastructure will allow us plan for what is to come and how we can keep up and implement the changes. We must first continue to keep up with the technological advancements to provide an engaging learning environment for our technology-savvy students. Parents should be able to have access to multiple documents and information pertaining to the school, classroom, and mostly their child’s performance. Students should be able to collect information online at anytime and place. Schools must provide the funding to maintain technology upgrades and fixes. Funding for technology is expensive leaving it difficult for schools to keep up with the ongoing changes. Schools are supposed to maintain connectivity through all sources of technology communication. Technical assistance should be provided twenty four hours a day, seven days a week. The schools should be able to hold enormous amounts of data with easy accessibility. Students with disabilities should be able to have access to all technologies that general education students are accessible to. Libraries will need updating along with online resources. Infrastructure for technology has to be planned well with flexibility to new technology enhancements. |
| **Study of Needs (41-42)** | Educational Technology Advisory Committee (ETAC) works with the Texas Education Agency (TEA) to advice on current technology needs. The Star Charts are district surveys used to assess their progress with technological usage. ETAC must make sure that they are able to measure the process of technology use within the state and district. ETAC should recommend revisions to the (2006-2020) Long-Range Technology Plan to keep up with the advancements in technology used in today’s industry. It is also crucial for funding to be planned and budgeted so students may have access to the technology. E-Rate programs are essential to the districts to help accommodate the mass amount of telecommunications necessary to run the school. With leadership and vision Texas should continue to try and exceed the standards of technology usage within schools. With 21st Century technology, strategies will be needed to keep the educators, administration, and learner up to par. |

What new information did you acquire from your analysis of the Long-Range Plan? How can your new learning assist you as an instructional leader who is guiding technology use and integration at a campus?

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| To begin, I have learned the four domains for the Long-Range Plan for Technology, (2006-2020). With the four domains I have found that the exponential growth of technology must be addressed in schools more. I can see how current educators may find it difficult to implement technology in their classroom when they lack the knowledge of usage. Funding is provided for professional development but to encourage educators to attend may be the source of the problem. The students have been reared in a new age that no longer allows for pure traditional teaching styles. As educators, administrators, facilitators, and mentors it is crucial for us to grow technologically with the students. Districts should provide information through databases, internet, intranet, and websites. Schools need to implement more technologies that will allow the students to take online courses, access their grades as to their parents, provide connectivity from anyplace at anytime, and continuously progress technically. Infrastructure for technology must foresee what is to come and how we may prepare financially for the expenses. The ETAC must continually keep up with changes occurring in today’s working industries so we may provide the students with effective 21ST Century technologies that will help them in the workforce. As a current educator I find it important for me to begin by printing my STaR Chart so I may see where improvement can be made. I should take advantage of the technology professional developments that they offer so I may help the others on my 10th grade math team for implementation and engagement of the technology. The more time I spend learning the technology we currently posses on campus will return great results for me to help others who may not know how to use what has been paid for us to implement and use for student engagement and higher learning. |

**Week 1 Assignment, Part 2: Technology Applications TEKS Summary**

Texas’ Technology Applications TEKS curriculum is divided into four strands: Foundations, Information Acquisition, Solving Problems, and Communication.

In this part of this assignment, you will summarize (1) the four strands of the Technology Applications TEKS and (2) two objectives/skills required in each of the four domains for a selected grade cluster.

To complete this assignment:

* Access the Technology Applications TEKS by entering the following address in your web address bar: http://www.tea.state.tx.us/rules/tac/ch126toc.html
* Thoroughly review the Technology Applications TEKS for PK-12. (NOTE: There are standards for Pre-K students, but they are not divided into domains.)
* Select a grade cluster—(K-2, 3-5, 6-8, 9-12)—and review the TEKS for that cluster.
* Complete columns 2-4 of the table by describing each domain of the Technology Applications TEKS and summarizing two important objectives/skills required in each of the four domains for your selected grade cluster.

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| Grade Cluster: 9-12 | |
| Technology Application Strand | Strand Description | Summary of TEKS #1 | Summary of TEKS #2 |
| **Foundations** | The student must have knowledge with the use of hardware, software programs, and connections. The student should demonstrate capability to input data and know the laws for technology usage in today’s society. | The student should posses the knowledge and skills to demonstrate appropriate use of operating systems, software applications, and communication and networking components. The student must be able to demonstrate decision making with regards to selection acquisition, usage of software taking into consideration its quality, appropriateness, effectiveness, and efficiency. The student should be able to make adjustments necessary for digital file formats and communicate the vocabulary effectively.  Distinction between process color, color mixing theories, creation of new colors, compare and contrast for sound editing, proper use and connectivity of digital cameras and scanners, and usage of different animation techniques of path and cell animation are all essential knowledge skills necessary to work in today’s society. | The student shall be proficient with the usage of devices such as keyboard, mouse, scanner, graphic tablet with pen, digital camera and differentiate between the input devices. |
| **Information Acquisition** | With the supervision of an adult, the student should be able to gather information electronically in a variety of ways using appropriate electronic resources. The student should be able to analyze and evaluate the information gathered from the electronic resources. | The student should be able to use local area networks (LANs) and wide area networks (WANs), internet, intranet, obtain and print information from a variety of resources such as encyclopedias, and databases. | The student should be able to use the internet to retrieve electronic formats such as audio, video, and citing information. The student should also be able to demonstrate proper usage of sound, digital imaging, and video integration while being able to import sounds from CDs, microphones, and tapes. |
| **Problem Solving** | Using computer-based tools the students should be able to create and modify solutions to problems. With appropriate supervision, the students should be able to research information and communicate electronically. Using technological applications, students should be able to produce a product through evaluations and processes. | The student should be able to design and implement procedures to track trends for the improvement in the process and product of their problem. The student should also be able to produce documentation such as logs, videos, printed books, and journals while being able to respond to peers and professionals during the problem solving process. | The student should be able to work with mentors to problem solve, develop products, produce original work that may be published and printed, communicate electronically with peers, teacher, mentor, and work with others to produce a professional product that may be electronically accessible. |
| **Communication** | The student should be able to communicate electronically and effectively through the use of digital formats of information. The students should also be able to provide a product electronically through a variety of ways such as media with supervision. Students should use technology applications to assist with the evaluation of communication. | The student should be able to produce a product that reaches their audience with appropriate use of technology and present it professionally. | The student should be able to decide the best method of communicating a message technologically. The student should be able to produce the presentation in a variety of ways such as printed copies, internet documents, and videos through possible usage of LANs and WANs. |

Summarize the Pre-K Technology Applications TEKS. How does the Pre-K TEKS lay the foundation for student performance in future grades?

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| The Pre-K students will learn the basic functions of computer operations. They will learn how to manipulate and control various input devices used with computers. With age appropriate software the students will become independent users allowing them to continue into higher standards. This foundation is essential to the student’s future performance in technology. It is crucial for the student to understand the basic foundations in order to progress into future higher education leading to the workforce. Without the basic skills the student will struggle to keep up with societies demands. |

The Technology Applications TEKS are designed as a dynamic, spiraling curriculum. Describe a series of TEKS in which students have multiple opportunities to master knowledge/skills.

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| Throughout the years beginning in Pre-K, the students continue to work on the foundations of technology. The student continuously works with software, hardware, different input devices, and the laws reinforced with the technologies. Following foundation, the student has the opportunity to continue to progress with information acquisition. Information acquisition allows the students to acquire information through audio, video, and graphics both through software and online throughout their educational years. The students will begin with solving problems at elementary level progressing in difficulty over the years. Finally, the students may continue to master the skill of communication through the building of vocabulary usage from elementary to high school level allowing the students to use the same vocabulary while increasingly expanding the usage of words. |

**Week 1 Assignment, Part 3: Requisite Technology Skills Assessment**

The Texas Education Agency (TEA) provides many resources for educators to help them assess and increase the knowledge and skills for success in the information age. One of the tools is the Technology Applications Inventory, which is a self-assessment of requisite knowledge required for implementation of the Technology Applications TEKS.

In Part of your assignment, you will access the Technology Applications Inventory and assess your knowledge and skills in the four strands of Foundations, Information Acquisition, Solving Problems, and Communication.

To complete this assignment:

* Access the Technology Applications Inventory by entering the following address in your web address bar: http://www.tea.state.tx.us/technology/techapp/assess/teksurv.pdf
* Print out the inventory, and complete it.
* Complete the table by recording your number of yes and no responses.
* After completing the chart, answer the questions that follow.

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| Domain | Total # of Questions | # of Yes Responses | # of No Responses |
| **Foundations** | **18** | **18** | **0** |
| **Information Acquisition** | **10** | **8** | **2** |
| **Solving Problems** | **18** | **16** | **4** |
| **Communication** | **12** | **8** | **4** |

What did the inventory reveal as your greatest strength? Do you agree? Explain.

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| The inventory revealed that I currently posses the foundations of technology as my greatest strength. I do agree that my greatest strength is foundation due to the fact that one must know the foundations in order to continue to higher level technology applications. I do find it odd that my second greatest strength is information acquisition. I would have thought solving problems would have come in second considering I am a math teacher and problem solving is or normality for me along with communication. |

What did the inventory reveal as your greatest weakness? Do you agree? Explain.

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| My greatest weakness falls under communication considering it has fewer questions than problem solving. I do agree that I may lack in technology communication considering I am still learning the vocabulary and usage of current day technology. This is part of the reason I decided to get a masters so that I may communicate and implement technology more effectively to my co-workers and most of all my students. |